

1/23

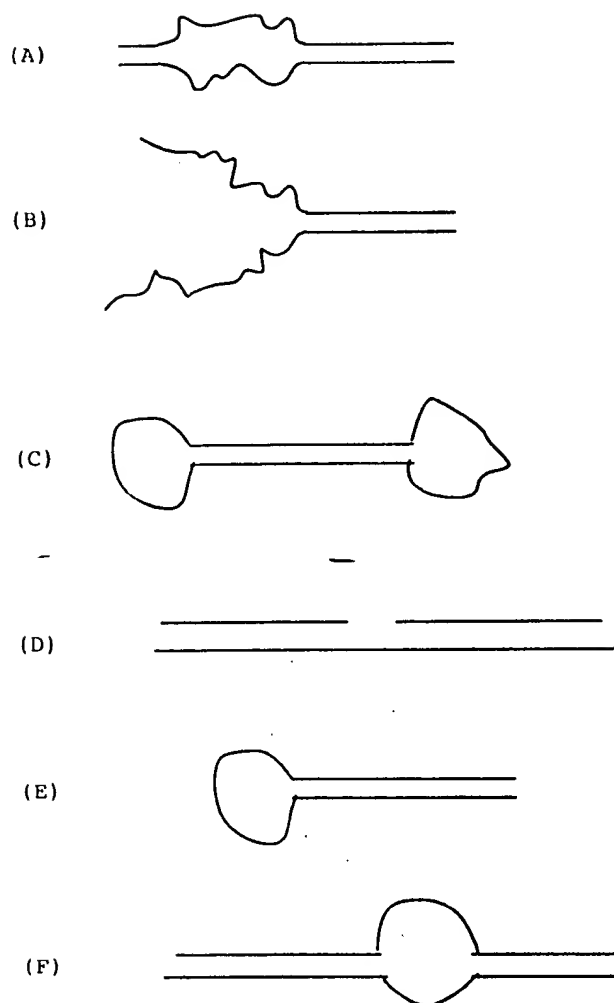


Figure 1 (A-F)

Construct Forms Comprising at Least one Single-Stranded  
Region

2/23

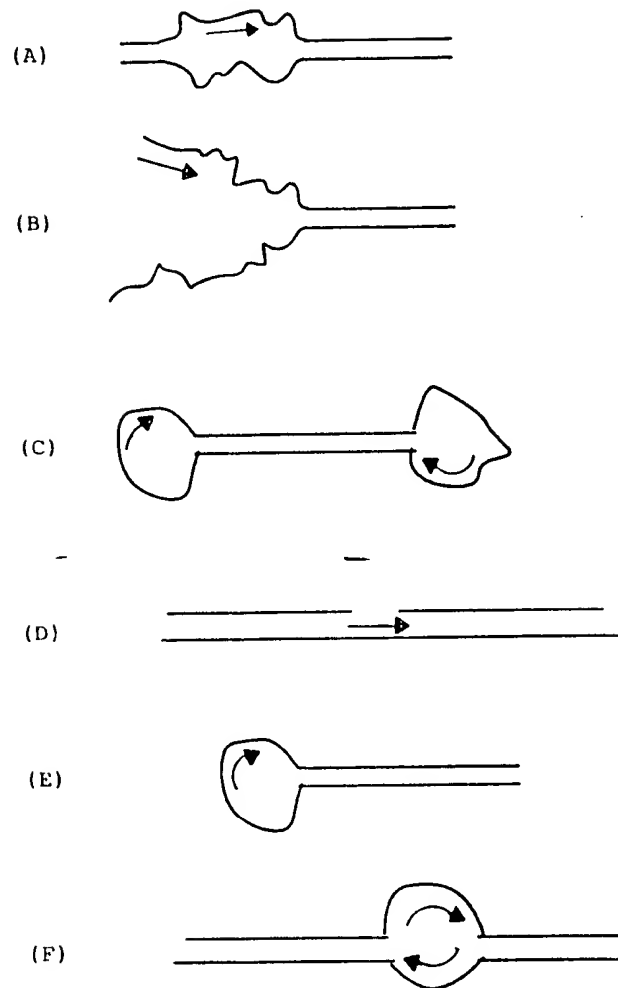


Figure 2 (A-F)

Functional Forms of the Construct

3/23

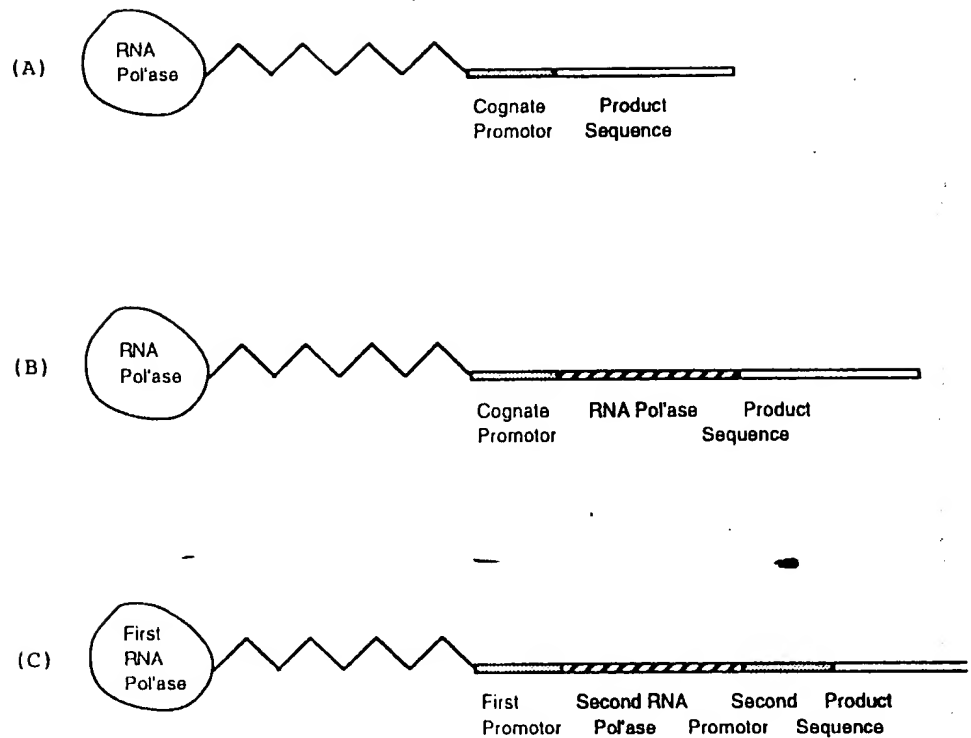


Figure 3 (A-C)

Three Constructs with an RNA Polymerase  
Covalently Attached to a Transcribing Cassette

4/23

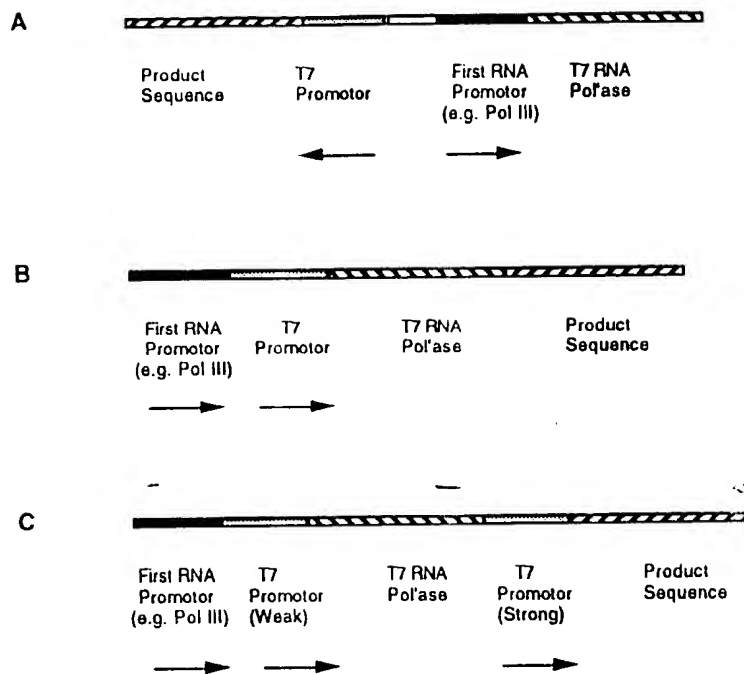


Figure 4 (A-C)

Three Constructs with Promoters  
for Endogenous RNA Polymerase

M13mp18. Seq Length: 7250

1.	AATGCTACTA	CTATTAGTAG	AATTGATGOC	AOCTTTTCAG	CTOGGGOOOC
51.	AAATGAAAAT	ATAGCTAAAC	AGGTTATTGA	OCATTTGOGA	AATGTATCTA
101.	ATGGTCAAAC	TAAATCTACT	OGTTGOCAGA	ATTGGGAATC	AACTGTTACA
151.	TGGAATGAAA	CTTOCAGACA	COGTACTTTA	GTTGCATATT	TAAAACATGT
201.	TGAGCTACAG	CACCAGATTC	AGCAATTAAG	CTCTAAGOCA	TOGCAAAAA
251.	TGAOCTCTTA	TCAAAGGAG	CAATTAAGG	TACTCTCTAA	TOCTGAOCTG
301.	TTGGAGTTTG	CTTOGGTCT	GGTTOGCTTT	GAAGCTOGAA	TTAAAAOGOG
351.	ATATTTGAAG	TCTTTGGGC	TTOCTCTTAA	TCTTTTIGAT	GCAATCOGCT
401.	TTGCTTCTGA	CTATAATAGT	CAGGGTAAAG	AOCTGATTTT	TGATTTATGG
451.	TCATTCTOGT	TTTCTGAAC	GTTTAAAGCA	TTTGAGGGGG	ATTCAATGAA
501.	TATTTATGAC	GATTOGOCAG	TATGGAOGC	TATOCAGTCT	AAACATTTTA
551.	CTATTACOOO	CTCTGGCAAA	ACTTCTTTTG	CAAAAGOCTC	TOGCTATTTT
601.	GGTTTTTATC	GTOGTCTGGT	AAOGAGGGT	TATGATAGTG	TTGCTCTTAC
651.	TATGOCTOGT	AATTOCTTTT	GGGTTATGT	ATCTGCATTA	GTTGAATGTG
701.	GTATTOCTAA	ATCTCAACTG	ATGAATCTTT	CTAOCTGTAA	TAATGTTGTT
751.	COGTTAGTTC	GTTTTATTAA	OGTAGATTTT	TCTTCCAAAC	GTOCTGACTG
801.	GTATAATGAG	CCAGTTCTTA	AAATOGCATA	AGGTAATTCA	CAATGATTAA
851.	AGTTGAAATT	AAOCATCTC	AAGOOCAATT	TACTACTOGT	TCTGGTGTTC
901.	TOGTCAGGGC	AAGCTTATT	CACTGAATGA	GCAGCTTTGT	TACGTTGATT
951.	TGGTAATGA	ATATCOGGTT	CTTGTOGAAG	ATTACTCTTG	ATGAAGGTCA
1001	GOCAGOOCTAT	GOGOOTGGTC	TGTACAOOGT	TCATCTGTCC	TCTTTCAAAG
1051	TTGGTCAGTT	CGGTTCCCTT	ATGATTGAOC	GTCGTGGOCT	OGTTOGGCT
1101	AAGTAACATG	GAGCAGGTGG	CGGATTTTGA	CACAATTTAT	CAGGOGATGA
1151	TACAAATCTC	CGTTGTACCTT	TGTTTGGGCG	TTGGTATAAT	CGCTGGGGGT
1201	CAAAGATGAG	TGTTTTAGTG	TATTCTTTGG	OCTCTTTOGT	TTAGGTTGG

Figure 5

M13mp18 Nucleic Acid Sequence

1251	TGCTTGGTA	GTGGCATTAC	GTATTTTACC	OGTTTAATGG	AAACTTCTC
1301	ATGAAAAAGT	CTTTAGTCCT	CAAAGCCTCT	GTAGCGGTG	CTACCTCTGT
1351	TOGATGCTG	TCTTTGCTG	CTGAGGGTGA	OGATCCCGCA	AAAGCGGCT
1401	TTAACTCCT	GCAAGCTCA	GCGACCGAAT	ATATCGGTTA	TGCGTGGGG
1451	ATGGTTGTTG	TCATTGTGG	CGCAACTATC	GGTATCAAGC	TGTTTAAGAA
1501	ATTCACTCTG	AAAGCAAGCT	GATAAACCGA	TACAATTAAA	GGCTCCTTTT
1551	GGAGCCTTTT	TTTTTGAGGA	TTTTCACGT	GAAAAAATTA	TTATTGCAA
1601	TTCCTTTAGT	TGTTCTTTC	TATTCTCACT	CGCTGAAAC	TGTTGAAAGT
1651	TGTTTAGCAA	AACCCATAC	AGAAAATTC	TTTACTAAGC	TCTGGAAGA
1701	CGACAAACT	TTAGATGTT	AAGCTAACTA	TGAGGGTTGT	CTGTGGAATG
1751	CTACAGGGGT	TGTAGTTTGT	ACTGGTGAAG	AAACTCAGTG	TTACGGTACA
1801	TGGGTTCTTA	TTGGGCTTGC	TATCCTGAA	AATGAGGGTG	GTGGCTCTGA
1851	GGGTGGGGT	TCTGAGGGTG	GCGGTTCTGA	GGGTGGGGT	ACTAAACCTC
1901	CTGAGTACGG	TGATACAAC	ATTCGGGGCT	ATACTTATAT	CAACCTCTC
1951	GACGGCACTT	ATCGGCTGG	TACTGAGCAA	AACCGCTA	ATCCTAATCC
2001	TTCTCTTGAG	GAGTCTCAGC	CTCTTAATAC	TTTCATGTTT	CAGAATAA
2051	GGTTGCGAAA	TAGGACGGG	GCATTAACCTG	TTTATAAGGC	CACTGTTACT
2101	CAAGGCACCTG	ACCGCGTTAA	AACCTATTAC	CAGTACACTC	CTGTATCATC
2151	AAAAGCATG	TATGACGCTT	ACTGGAACGG	TAAATTCAGA	GACTGCGCTT
2201	CAAGGCACCTG	ACCGCGTTAA	AACCTATTAC	CAGTACACTC	CTGTATCATC
2151	AAAAGCATG	TGCTCAAC	TCTGTCAAT	GCTGGGGGG	GCTCTGGTGG
2201	TCCATTCTGG	CTTTAATCAA	GATCATTCTG	TTTGTGAATA	TCAAGGCGAA
2251	TGTTCTGAC	TGCTCAAC	TCTGTCAAT	GCTGGGGGG	GCTCTGGTGG
2301	TGGTTCTGGT	GGGGCTCTG	AGGGTGGTGG	CTCTGAGGGT	GGGGTCTCTG
2351	AGGGTGGGG	CTCTGAGGGA	GGGGTTCCG	GTGGTGGCTC	TGGTTCCGGT
2401	GATTTTGATT	ATGAAAAGAT	GGCAACGCT	AATAAGGGGG	CTATGACCGA
2451	AAATGCGGAT	GAAAACGGG	TACAGTCTGA	CGCTAAAGGC	AAACTTGATT

Figure 5

M13mp18 Nucleic Acid Sequence

2501	CTGTGGCTAC	TGATTACGGT	GCTGCTATCG	ATGGTTTCAT	TGGTGAOGTT
2551	TCGGGOCCTG	CTAATGGTAA	TGGTGCTACT	GGTGATTTTG	CTGGCTCTAA
2601	TTCCCAAATG	GCTCAAGTGG	GTGAOGGTGA	TAATTCACCT	TTAATGAATA
2651	ATTTCCGTCA	ATATTTACCT	TCCTCCTCTC	AATGGGTTGA	ATGTGGCCTT
2701	TTTGTCTTTA	GCGCTGGTAA	AACATATGAA	TTTTCTATTG	ATTGTGACAA
2751	AATAAACTTA	TTCCGTGGTG	TCCTTGCGTT	TCTTTTATAT	GTTGCCACCT
2801	TTATGTATGT	ATTTTCTACG	TTTGCTAACA	TACTGGGTAA	TAAGGAGTCT
2851	TTATCATGCC	AGTTCTTTTG	GGTATTCOGT	TATTATTGCG	TTTCTCGGTT
2901	TTCTTCTGG	TAACTTTGTT	CGCTATCTG	CTTACTTTTC	TAAAAAGGG
2951	CTTGGTAAG	ATAGCTATTG	CTATTTCAAT	GTTTCTTGCT	CTTATTATTG
3001	GGCTTAACTC	AATCTTGTTG	GGTATCTCT	CTGATATTAG	CGCTCAATTA
3051	CCCTCTGACT	TTGTTGAGGG	TGTTCAAGTA	ATTCTCCCGT	CTAATGGGCT
3101	TCCTGTGTTT	TATGTTATTC	TCTCTGTAAA	GGCTGCTATT	TTCAATTTTG
3151	ACGTAAACA	AAAAATCGTT	TCTTATTTGG	ATTGGGATAA	ATAATATGGC
3201	TGTTTATTTT	GTAAGTGGCA	AATTAGGCTC	TGGAAAGAGG	CTGGTTAGGG
3251	TTGGTAAGAT	TCAGGATAAA	ATTGTAGCTG	GGTGCAAAAT	AGCAACTAAT
3301	CTTGATTTAA	GGCTTCAAAA	CTCCCGCAA	GTCGGGAGGT	TGGCTAAAC
3351	GGCTGGGTTT	CTTAGAATAC	CGGATAAGGC	TTCTATATCT	GATTTGCTTG
3401	CTATTGGGGG	CGGTAATGAT	TCCTACGAATG	AAAATAAAAA	CGGCTTGCTT
3451	GTTCTGATG	AGTGGGTAC	TTGGTTTAAT	AACCGTTCTT	GGAATGATAA
3501	GGAAAGACAG	CCGATTATTG	ATTGGTTTCT	ACTGCTCGT	AAATTAGGAT
3551	GGGATATTAT	TTTTCTTGTT	CAGGACTTAT	CTATTGTTGA	TAAACAGGGG
3601	CGTTCTGCAT	TAGCTGAACA	TGTTGTTTAT	TGTGCTGCTC	TGGACAGAAT
3651	TACTTTACCT	TTTGTGGTGA	CTTTATATTC	TCTTATTACT	GGCTGGAAAA
3701	TGCTCTGGC	TAAATTACAT	GTTGGGGTTG	TTAAATATGG	CGATTCTCAA
3751	TTAAGCCCTA	CTGTTGAGGG	TTGGCTTTAT	ACTGGTAAGA	ATTTGTATAA
3801	CGCATATGAT	ACTAAACAGG	CTTTTCTAG	TAATTATGAT	TCGGTGTGTT

Figure 5

M13mp18 Nucleic Acid Sequence

3851	ATTCTTATTT	AACGCTTAT	TTATCACACG	GTCGGTATTT	CAAACCATTA
3901	AATTTAGGTC	AGAAGATGAA	ATTAACATAA	ATAATATTGA	AAAAGTTTTT
3951	TCGGTTCTT	TGTCCTGOGA	TTGGATTGCG	ATCAGCATTT	ACATATAGTT
4001	ATATAACCCA	ACCTAAGGCG	GAGGTTAAAA	AGGTAGTCTC	TCAGACCTAT
4051	GATTTTGATA	AATTCATCAT	TGACTCTTCT	CAGCGTCTTA	ATCTAAGCTA
4101	TCGCTATGTT	TTCAAGGATT	CTAAGGGAAA	ATTAATTAAT	AGCGAOGATT
4151	TACAGAAGCA	AGGTTATTCA	CTCACATATA	TTGATTTATG	TACTGTTTCC
4201	ATTAAAAAAG	GTAATTCAAA	TGAAATTGTT	AAATGTAATT	AATTTTGTTT
4251	TCTTGATGTT	TGTTTCATCA	TCTTCTTTTG	CTCAGGTAAT	TGAAATGAAT
4301	AATTGCGCTC	TCGGCGATTT	TGTAACCTGG	TATTCAAAAG	AATCAGGCGA
4351	AATCCGTTATT	GTTTCTCCCG	ATGTAAAAGG	TACTGTTACT	GTATATTTCAT
4401	CTGACGTAA	ACCTGAAAAT	CTACGCAATT	TCTTTATTTC	TGTTTTACGT
4451	GCTAATAATT	TTGATAATGGT	TGGTTCAATT	OCTTCATAA	TTGAGAAGTA
4501	TAATCCAAAC	AATCAGGATT	ATATTGATGA	ATTGOCATCA	TCTGATAATC
4551	AGGAATATGA	TGATAATTC	GCTCCTTCTG	GTGGTTTCTT	TGTTCCGCAA
4601	AATGATAATG	TTACTCAAAC	TTTTAAATTT	AATAACGTTT	GGGCAAAASA
4651	TTAATAACGA	GTTGTGGAAT	TGTTTGTAAG	GTCTAATACT	TCTAAATCCT
4701	CAAATGTATT	ATCTATTGAC	GGCTCTAATC	TATTAGTTGT	TAGTGCTCCT
4751	AAAGATATTT	TAGATAACCT	TCCTCAATTC	CTTCTACTG	TTGATTTGCC
4801	AACTGAOCAG	ATATTGATTG	AGGGTTTGAT	ATTTGAGGTT	CAGCAAGGTG
4851	ATGCTTTAGA	TTTTTCATTT	GCTGCTGGCT	CTCAGGTTGG	CACTGTTGCA
4901	GGGGGTGTTA	ATACTGAOCG	OCTCAOCTCT	GTTTTATCTT	CTGCTGGTGG
4951	TTGGTTGGGT	ATTTTAAATG	GCGATGTTTT	AGGGCTATCA	GTTGGGCGAT
5001	TAAAGACTAA	TAGOCATTCA	AAAATATTGT	CTGTGCAOAG	TATTCTTACG
5051	CTTTCAGGTC	AGAAGGGTTC	TATCTCTGTT	GGCAGAAATG	TCCCTTTTAT
5101	TAAAGACTAA	TAGOCATTCA	AAAATATTGT	CTGTGCAOAG	TATTCTTACG
5151	CGATTGAGCG	TCAAAATGTA	GGTATTTCOA	TGAGCGTTTT	TCTGTTTGCA

Figure 5

M13mp18 Nucleic Acid Sequence



5201	ATGGCTGGCG	GTAATATTGT	TCTGGATATT	AOCAGCAAGG	COGATAGTTT
5251	GAGTTCTCT	ACTCAGGCAA	GTGATGTTAT	TACTAATCAA	AGAAGTATTG
5301	CTACAAOGGT	TAATTTGOGT	GATGGACAGA	CTCTTTTACT	CGGTGBOCTC
5351	ACTGATTATA	AAAACACTTC	TCAAGATTCT	GGGTAAOOGT	TOCTGTCTAA
5401	AATCCCTTTA	ATCGGCTOC	TGTTTAGCTC	COGCTCTGAT	TOCAAOGAGG
5451	AAAGCAOGTT	ATACGTGCTC	GTCAAAGCAA	CCATAGTAGG	CGOOCCTGTAG
5501	CGGGGCATTA	AGGGGGGGG	GTGTGGTGGT	TACGGGCAGC	GTGAOOGCTA
5551	CACTTGOCAG	CGOOCCTAGG	COOGCTOCTT	TOGCTTTCTT	COCTTOCTTT
5601	CTGGCAOGT	TOGCGGCTT	TOOOGTCAA	GCTCTAAATC	GGGGGCTOOC
5651	TTTAGGGTTC	CGATTTAGTG	CTTAOGGCA	OCTOGAOCOC	AAAAAACTTG
5701	ATTTGGGTGA	TGGTTCAGT	AGTGGGOCAT	CGOOCCTGATA	GACGGTTTTT
5751	CGOOCCTTGA	OGTGGAGTC	CAOGTTCTTT	AATAGTGGAC	TCTTGTTCOA
5801	AACTGGAACA	ACACTCAAOC	CTATCTGGG	CTATTCTTTT	GATTTATAAG
5851	GGATTTTGOC	GATTTGGGAA	CCACATCAA	ACAGGATTTT	CGOCTGCTGG
5901	GGCAAAOCAG	OGTGAOOGC	TTGCTGCAAC	TCTCTCAGGG	CCAGGGGGTG
5951	AAGGGCAATC	AGCTGTGOC	OGTCTOOGTG	GTGAAAAGAA	AAOOCACOOT
6001	GGGGCCAAAT	AOGCAAAOOG	OCTCTOOCOG	CGGGTTGGOC	GATTCATTAA
6051	TGCAGCTGGC	AOGACAGGTT	TOOOGACTGG	AAAGGGGGCA	GTGAGGGCAA
6101	CGCAATTAAT	GTGAGTTAGC	TCACTCATTA	GGCAOOCOCAG	GCTTTACACT
6151	TTATGCTTCC	GGCTGGTATG	TTGTGTGGAA	TTGTGAGGGG	ATAACAATTT
6201	CACACAGGAA	ACAGCTATGA	CCATGATTAC	GAATTGAGGC	TOGGTACCOG
6251	GCGATCCTCT	AGAGTGAOC	TGCAGGCATG	CAAGCTTGGC	ACTGGGOGTC
6301	GTTTTACAAC	GTOGTGACTG	GGAAAAOOC	GGGGTTAOC	AACTTAATOG
6351	OCTTGACGCA	CAATCOOCTT	TOGOCAGCTG	GGTAATAGC	GAAGAGGBOC
6401	GCAOGATOG	COCTTOCCAA	CAGTTGGGCA	GOCTGAATGG	OGAATGGGOC
6451	TTTGOCCTGGT	TTGGGGCAOC	AGAAGGGGTG	COGGAAAGCT	GGCTGGAGTG
6501	CGATCTTOCT	GAGGCOGATA	CGGTGGTGGT	COOCTCAAAC	TGGCAGATGC

Figure 5

M13mp18 Nucleic Acid Sequence

10/23

6551	ACGGTTAOGA	TGOGGOCATC	TACAOCOAOG	TAAOCTATOC	CATTAOGGTC
6601	AATCOGCOGT	TTGTTCCAC	GGAGAATOG	ACGGGTTGTT	ACTOGCTCAC
6651	ATTTAATGTT	GATGAAAGCT	GGCTACAGGA	AGGOCAGAOG	CGAATTATT
6701	TTGATGGOGT	TCCTATTGGT	TAAAAAATGA	GCTGATTTAA	CAAAAATTTA
6751	ACGOGAATTT	TAACAAAATA	TTAACGTTTA	CAATTTAAAT	ATTTGCTTAT
6801	ACAATCTTC	TGTTTTGGG	GCTTTTCTGA	TTATCAACOG	GGGTACATAT
6851	GATTGACATG	CTAGTTTTAC	GATTACOGTT	CATOGATTCT	CTTGTTTGCT
6901	OCAGACTCTC	AGGCAATGAC	CTGATAGCCT	TTGTAGATCT	CTCAAAAATA
6951	GCTAOCCTCT	COGGCATGAA	TTTATCAGCT	AGAACGGTTG	AATATCATAT
7001	TGATGGTGAT	TTGACTGTCT	COGGCCTTTC	TCACOCCTTT	GAATCTTTAC
7051	CTACACATTA	CTCAGGCATT	GCATTTAAAA	TATATGAGGG	TTCTAAAAAT
7101	TTTATCCTT	GCGTTGAAAT	AAAGGCTTCT	COOGCAAAAG	TATTACAGGG
7151	TCATAATGTT	TTTGGTACAA	COGATTTAGC	TTTATGCTCT	GAGGCTTTAT

Figure 5

M13mp18 Nucleic Acid Sequence

11/23

COMPLEMENTARY TO M<sub>13</sub>

POSITION	5' . . . 3'	POSITION	
645	AGCAACACTATCATA	631	M <sub>13</sub> /1
615	ACGACGATAAAAAAC	601	M <sub>13</sub> /2
585	TTTGTCAAAGAAGT	571	M <sub>13</sub> /3
555	AATAGTAAATGTTT	541	M <sub>13</sub> /4
525	CAATACTGCGGAATG	511	M <sub>13</sub> /5
495	TGAATCCOOCCTCAA	481	M <sub>13</sub> /6
465	AGAAAACGAGAATGA	451	M <sub>13</sub> /7
435	CAGGTCTTTAOCCTG	421	M <sub>13</sub> /8
405	AGGAAAGCGGATTGC	391	M <sub>13</sub> /9
375	AGGAAGCCCGAAAGA	361	M <sub>13</sub> /10

COMPLEMENTARY TO SS PHAGE DNA

POSITION	5' . . . 3'	POSITION	
351	ATATTTGAAGTCTTT	366	M <sub>13</sub> /11
371	TCTTTTGATGCAAT	386	M <sub>13</sub> /12
391	CTATAATACTCAGGG	406	M <sub>13</sub> /13
411	TGATTTATGGTCATT	426	M <sub>13</sub> /14
431	GTTTAAAGCATTTGA	446	M <sub>13</sub> /15
451	TATTTATGACGATTG	466	M <sub>13</sub> /16
471	TATCCAGTCTAAACA	486	M <sub>13</sub> /17
491	CTCTGGCAAACTTC	506	M <sub>13</sub> /18
511	TCGCTATTTTGGTTT	526	M <sub>13</sub> /19
531	AAACGAGGGTTATGA	546	M <sub>13</sub> /20

Figure 6

Primers for Nucleic Acid Production  
Derived from M13mp18 Sequence

12/23

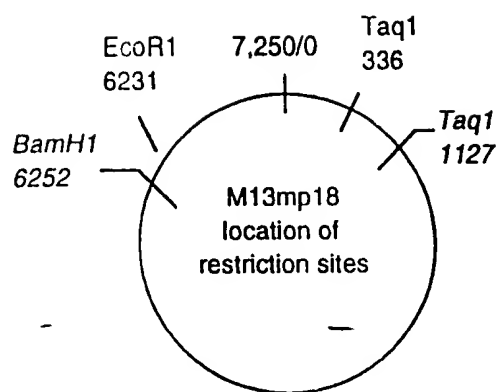
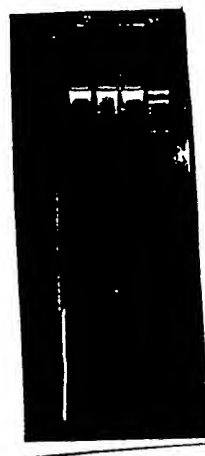


Figure 7

Appropriate M13mp18 Restriction Sites

13/23



Lane 1: from calf thymus + Taq digested mp18 amplification reaction  
Lane 2: from Taq digested mp18 amplification reaction  
Lane 3: from calf thymus amplification reaction  
Lane 4: øX174 Hinf1 size marker

**Figure 8**

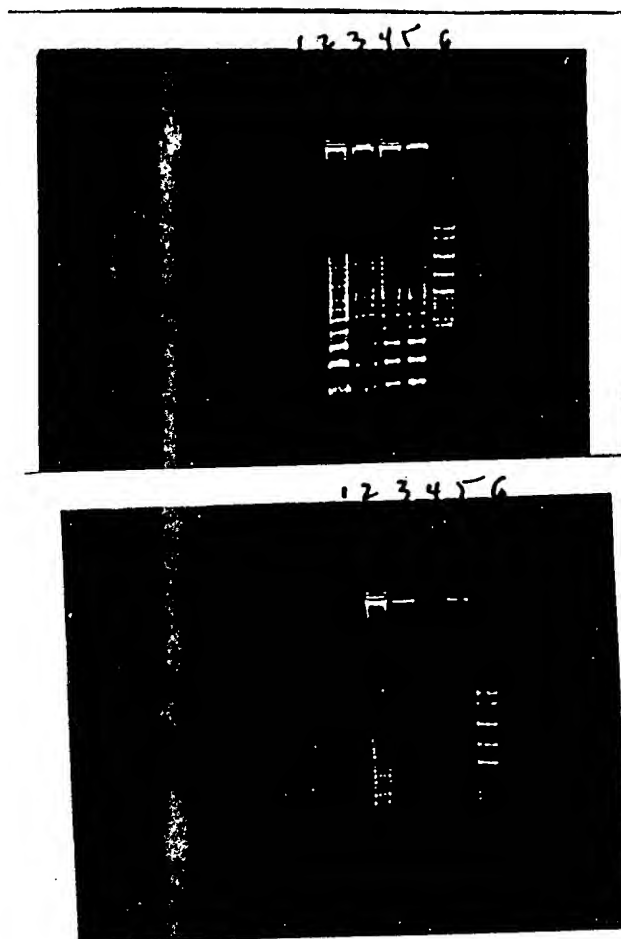
14/23



Lane 1: no template  
Lane 2: mp18 template, phosphate buffer  
Lane 3: MspI/pBR322 size marker  
Lane 4: mp18 template, MOPS buffer

Figure 9

15/23

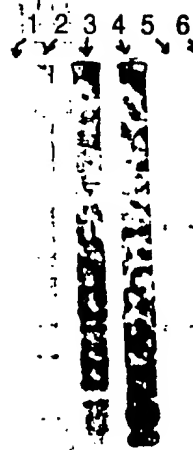


Top= (+) Template  
Bottom= (-) Template

Lane 1: phosphate buffer  
Lane 2: MES  
Lane 3: MOPS  
Lane 4: DMAB  
Lane 5: DMG  
Lane 6: pBR322/Mspl size marker

Figure 10

16/23

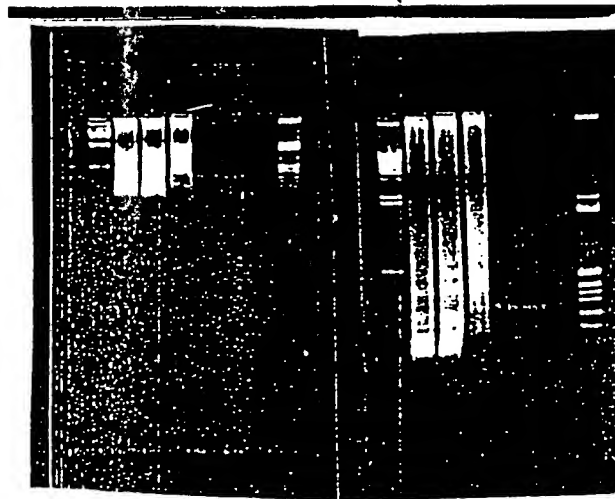


Lane 1: DMAB buffer, no template  
Lane 2: DMAB buffer, mp18 template  
Lane 3: DMG buffer, no template  
Lane 4: DMG buffer, mp18 template  
Lane 5: No reaction  
Lane 6: 200 ng Taq I digested mp18  
size marker/positive control

Figure 11



17/23



First Time Interval      Second Time Interval

Agarose Gel Analysis

- Lane 1: lambda Hind III marker
- Lane 2: Amp/Untreated
- Lane 3: Amp/Kinased
- Lane 4: Amp/Kinased/Ligated
- Lane 5: PCR/Untreated
- Lane 6: PCR/Kinased
- Lane 7: PCR/Kinased/Ligated
- Lane 8:  $\phi$ X174/Hinf1 marker

Figure 12

18/23

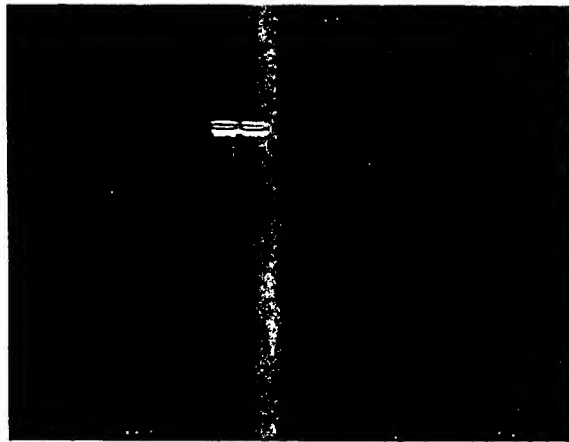
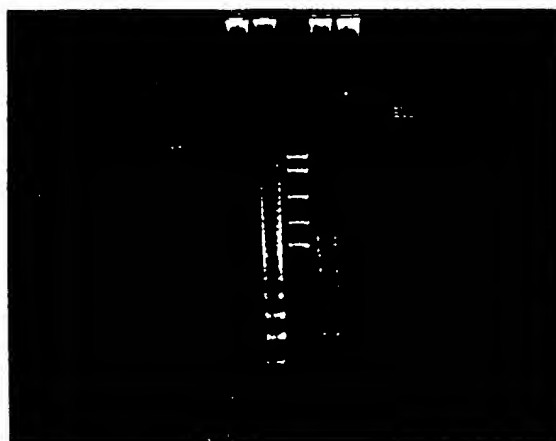


Figure 13

19/23

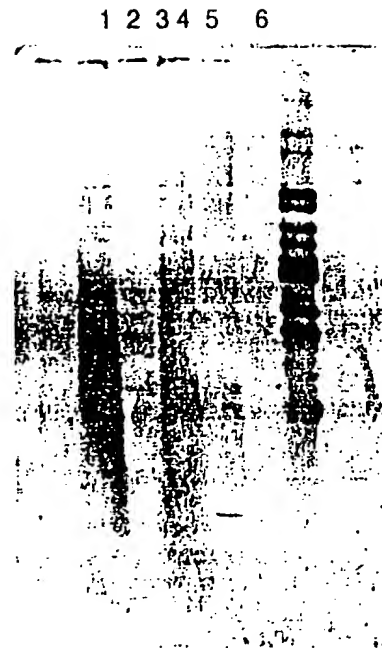
1 2 3 4 5 6



Lane 1: Primers alone  
Lane 2: Primers + taq digested M13 DNA  
Lane 3: Molecular weight markers  
Lane 4: Primers + RNA  
Lane 5: Primers alone  
Lane 6: M13 digested DNA  
Buffer was dimethyl amino glycine, pH 8.6

Figure 14

20/23



Lane 1: Primers alone  
Lane 2: Primers + taq digested M13 DNA  
Lane 3: Molecular weight markers  
Lane 4: Primers + RNA  
Lane 5: Primers alone  
Lane 6: M13 digested DNA  
Buffer was dimethyl amino glycine, pH 8.6

Figure 15

21/23

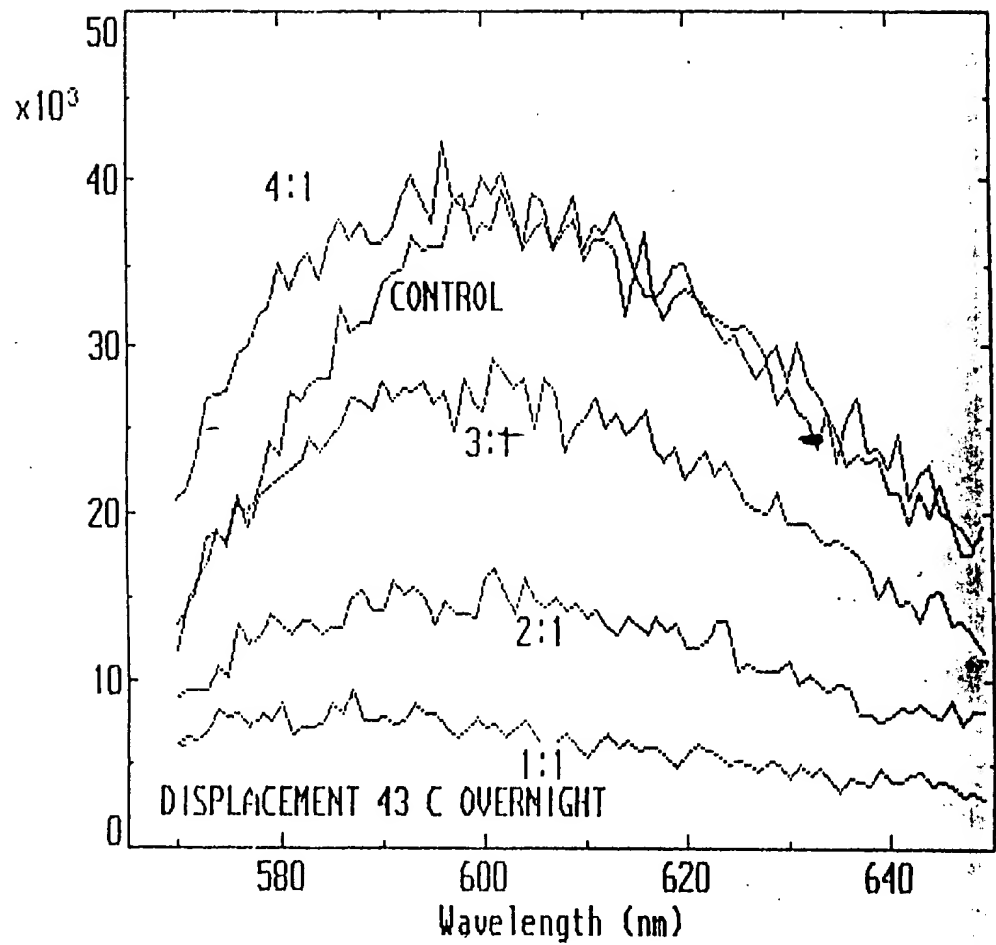


Figure 16

22/23

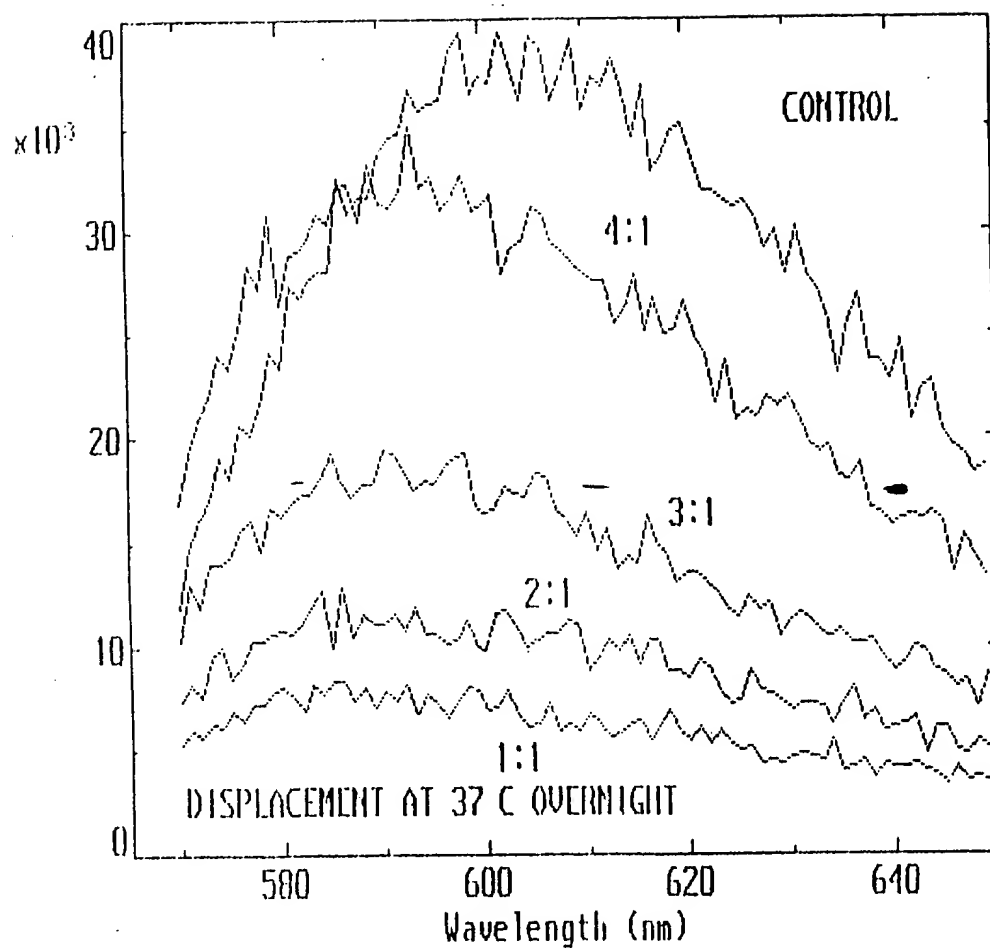


Figure 17

23/23

pIBI 31-BH5-2

fmet AUG of Lac z [T7 Promotor region....  
 LAC PROMOTOR..ATG ACC ATG ATT ACG CCA GAT ATC AAA TTA ATA CGA CTC ACT ATA  
 oligo 50-mer 3'- tac t'aa t'gc ggt' ct'a t'ag t'Vt aat' tat' gct' gag t'ga t'at' c-5'  
 10 base insert

T7 RNA Start (« T3 Promotor Region )  
 IGGG CTC ICCT TTA GTG ACG GTT AAT  
 ...») «- T3 Start Signal

pIBI 31 BSII/HCV

fmet AUG of Lac z [T3 Promotor region --) T3 RNA Start  
 LAC PROMOTOR ..ATG ACC ATG ATT ACG.CCA AGC TCG AAA TTA ACC CTC ACT AAA IGGG  
 oligo 50-mer 3'- tac t'aa t'ac t'aa t'gc ggt' t'V--10 base insert--.....

(«- T7 Promotor Region )  
 MULTIPLE CLONING SITE + 390 BASE INSERT CTA /TAG TGA GTC CGT ATT AAT....  
 «- T7 Start Signal  
 5'-ct'a t'ag t'ga gt'c gt'a tt'a at'.....

Figure 18